

Lung function

Polish Spirometry Day 2013 and World Spirometry Day 2014 - presentation of selected results

*A. Badyda^{1,2}, P. Czechowski³, D. Mucha¹, A. Gayer¹, P. Dąbrowiecki^{2,4}

¹Warsaw University of Technology, Faculty of Environmental Engineering (Warsaw, Poland)

²Polish Federation of Asthma, Allergy and COPD Patients' Associations (Warsaw, Poland)

³Gdynia Maritime University, Department of Information Systems (Gdynia, Poland)

⁴Military Institute of Medicine, Central Clinical Hospital of the Ministry of National Defence (Warsaw, Poland)

Early detection of respiratory diseases, particularly COPD, is crucial for the exacerbations progression prevention and effective treatment. Therefore the dissemination of knowledge on causes, symptoms and consequences of obstructive diseases is important. Spirometry Days are expected to be one of the methods to raising the awareness of these diseases.

In 9355 people questionnaires and pulmonary function tests were completed. Information on occurrence of respiratory diseases symptoms, allergies, smoking and place of residence were collected. Final analyses encompassed the results of 2175 people (1187 in 2013 and 988 in 2014).

421 cases of obstruction were identified, which is 19.4% of the analysed group. For 1271 people (58.4% of the group) it was the first spirometry test in their life. Among them 218 cases of obstruction were found. In people who have not previously been diagnosed with asthma or COPD (N=1922), obstruction was diagnosed in 349 individuals (18.2% of this group). Generally mean values of FEV₁, FVC and FEV₁/FVC met the GOLD guidelines. Decreasing pulmonary function was however observed in smokers, but also in non-smokers living in cities (FEV₁ lower by 4.5-9.3% as compared to rural areas inhabitants) and closer to roads with high traffic density (FEV₁ lower by 5.1% in people living <50m compared to those living >150m from road).

Due to the low awareness on chronic respiratory diseases and their relationship with smoking and quality of the environment, such screening tests and spreading knowledge are of great importance. Otherwise large group of people could still unknowingly live with obstructive disease.